CONNECT: Telecare health coaching management of low back pain in primary care. A feasibility study

Connect Pilot Study final report to Arthritis Australia

Protocol Number: 4

NSLHD HREC reference: RESP/18/113

Funder: Arthritis Australia

Prepared by Professor Manuela Ferreira and Joanna Prior

Contents

Connect Pilot Study – Final Report

The Connect pilot study was undertaken from April 2019 to February 2020 to test and refine the processes and procedures of the Connect protocol before applying to run a randomised controlled trial based on the pilot study procedures. The pilot study was run with no control group, meaning all participants were recruited and followed the process as if assigned to the 'intervention group.'

The completion of the study took 4 months longer than anticipated due to delays in ethical and Governance approvals following changes required to the protocol as the funding allowed for only a pilot study and not the full randomised controlled trial. The study was further delayed by the ability to procure a research assistant as 0.2FTE to the pilot study and staff annual leave entitlements.

1. Pilot study aims:

The aim of the pilot study was to evaluate the study processes in order to fine tune the delivery of the service at the primary care level, before evaluating its effectiveness in a future randomised control trial.

1.1 Pilot study aims were to test:

- The feasibility of the trial procedures, including: screening and recruitment procedures, baseline assessment and data collection procedures
- Delivery process of the intervention components.
- The feasibility of health coaching intervention/goal setting delivery

2. Connect Study Implementation:

2.1 Key Pilot dates:

Action	date	Comment
Protocol amendment approval	18/04/2019	Amendment made to the protocol to change from a RCT to pilot study
Governance approval	18/04/2019	
Pilot study Officially commenced	01/05/2019	
1st ED staff recruited	21/05/2019	
1st participant recruited	26/05/2019	
1st participant support phone call	3/06/2019	
Final participant outcome survey completed	25/02/2020	
Final ED feedback survey completed	28/02/2020	3/5 feedback surveys completed
Pilot officially completed	28/02/2020	

2.2 Site:

The pilot was implemented in one Emergency department (RNSH) as per protocol and ethical approval.

1.3.1 Emergency Department (ED) staff recruitment and training:

There was difficulty in gaining ED doctor and nurse participation in the study identification of patients due to the presence of the research assistant on site 1 day/week. The ED Nurse Unit Manager was contacted and gave permission for ED nurses to be approached to participate. Due to the continuous changes of nursing staff roster, consistent access to potential study nurses was limited. The future randomised study would require a continuous weekday presence within the ED department to assist in the enrolment and training of ED staff to identify consecutive patients presenting to ED during both day and night shifts. The ED physiotherapy participation from Monday to Friday was well established and maintained by weekly liaison with the participating Physiotherapists by the study coordinator. Only physiotherapists working in the ED department engaged and consented to assist in the study.

All ED physiotherapists consented to identify patients for the study. All participating physiotherapists received training in their role to identify potential patients, the provision of the screening form for patients to complete, the provision of the patient information sheet and how to transfer the patient identification form to the research team.

The physiotherapist providing the “Connect” phone support service for participants (care manager), completed both levels 1 and 2 of the “Wellness Coaching Australia” course along with receiving training in the participant phone support service as per the protocol.

1.3.2 Participant screening, consent and recruitment:

The pilot study target number of 10 participants was met. From 33 patients that were identified and screened for eligibility, 16 patients met our inclusion and exclusion criteria. The online consent was completed by 11 patients and 10 patients completed the baseline survey to be enrolled in the pilot study. The recruitment rate was 30%.

1.3.3 Pilot flow diagram

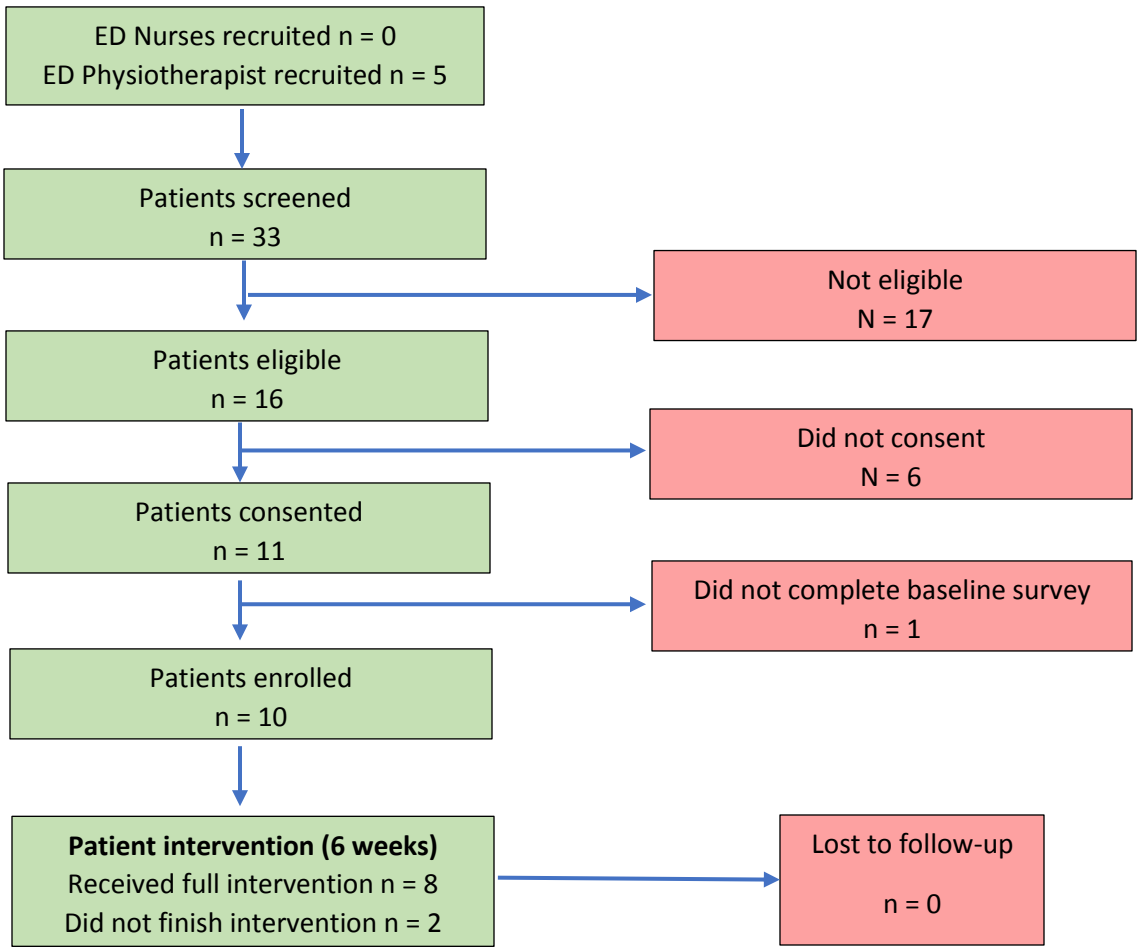

Table 2: Patient screening, consent and recruitment numbers

Target number	Number screened	Number excluded	Number consented	Number enrolled
10	33	17	11	10

1.4 Summary of patient exclusion:

There were varied reasons for exclusion of patients from the study. Nine patients were excluded as they did not meet all the study inclusion and exclusion criteria (see Appendix 1). Nine other patients were excluded due lack of time to participate (n = 1) , did not want to provide personal details to the study (n = 1), unable to be contacted by the research team (n = 3), no longer interested (n = 2) or their pain had already resolved by the time they were contacted by the research team (n = 2).

Table 3: Main reasons for exclusion

Reason	Number of participants
Radicular symptoms	3
Severe night pain	1
Fall/trauma	2
No access to computer/tablet/phone for intervention or online surveys	2
No time to participate	1
Did not want to provide personal details to the study	1
Specific diagnosis leading to surgery	1
Unable to contact	3
Decided no longer interested	2
Pain resolved prior to screening call	2

1.5 Summary of time taken to complete consent and enrolment tasks:

The mean number of days from discharge from ED to the research team contacting to screen patients was 1.7 days (range 0 – 5 days). The average time taken for patients to complete the consent form following phone screening by the research team was 2.3 days (range 0 – 11 days) with a further average of 3.2 days (range 0 – 11 days) to complete the baseline assessment after the consent has been completed. The total average time taken to identify patients in ED to enrolment was 7.3 days. Following enrolment, it took an average of 3.2 days for the participant to receive their initial phone consultation. The delay following enrolment to first phone call was noted to be due to enrolment occurring on a Friday and the earliest available time to contact was the following Monday. The average time between patient identification in ED to the initial intervention phone consultation was 7.3 days (range 1 – 19 days).

Table 4: Time taken for patients to complete consent and enrolment tasks

Mean number of days to complete			
Admission to screening call	Screening to consent	Consent to baseline	Baseline to 1st call
1.8	2.3	3.2	3.2

1.5.1 The main difficulties in recruitment were identified as:

- Difficulty in contacting patients following discharge from emergency
  - This will be addressed by the identification form containing additional information to indicate the most suitable time/day to be contacted by study personnel
  - Online screening tool that interested patients can access immediately to enable the study personnel only to contact only those that meet the eligibility criteria to confirm eligibility and provide study information.

- Possibility of completing the eligibility screening of patients by local site coordinators prior to patient discharge with the link to the online participant information sheet and consent form given to take home for further reading.

- Patients were only identified during usual workday hours Monday to Friday. Patients attending Emergency after working hours or at the weekend were therefore missed indicting that consecutive patients presenting to ED were not identified or invited for participation in the study.
  - For the main RCT this would be addressed by recruiting the weekend and night ED Physiotherapists along with a more consistent recruitment drive to engage ED doctors and nurses by the presence of a fulltime research assistant.
- The completion of the online consent form did not automatically generate the online baseline survey to open to facilitate a smooth transition for the participant. This was set up to ensure that the consent forms were correctly completed and checked by the research team prior to completion. This, however, introduced a further avoidable time delay between consent and enrolment that will be addressed in the future RCT by ensuring the process from correct completion of the online consent form automatically opens the online baseline survey for the participants to complete in one sitting.
- The future RCT will aim to provide initial phone consults at the weekends to reduce the delay between identification, consent, enrolment and initiation of the intervention.

1.6 Withdrawals

No participants withdrew from the study.

1.7 Adverse events

No adverse events were reported or recorded in this study

2 Summary of data collected for the pilot study

2.1 Participant characteristics:

The participant baseline characteristics are summarised in table 5 below. There was an even split between male and female participants. The average participant BMI was considered to be overweight (BMI 25 – 29.9) with 4 participants individually categorised as being of healthy weight, three categorised as overweight and one categorised as obese. Most participants reported pain for less than 4 weeks (n = 6) and three participants reported chronic symptoms (> 7 years). The average pain intensity reported at baseline was 5.8 (range 2-10). Five participants described their back pain as being of insidious onset (no apparent cause), three reported an injury and two reported their back pain as being work related.

Four participants reported co-existing conditions or previous injuries as listed in table 5. Three participants reported taking prior medications which consisted of an average of five medications taken by these three participants.

Table 5: Baseline characteristics

Characteristic	Mean	Comments
Sex Male: Female	5:5	
BMI healthy weight 18.5 – 24.9 Overweight 25 – 29.9 Obese 30+	26.46 4 3 1	Incomplete data - 1
Education Year 11 or below Year 12 or equivalent Bachelor Degree Post graduate Diploma/ Graduate Certificate Masters PhD	 1 1 3 1 2 2	
Employment status Full time Part time Studying Rather not say	 4 3 1 1	Incomplete data - 1
Pain rating 0-10/10	5.8 (2 – 10)	
Back pain duration	6 participants < 4 weeks 3 participants > 7 years 1 participant unspecified	
Back pain cause	Injury – 3 No apparent cause – 5 Work related – 2	
Co-existing conditions/previous injuries	4 participants	Idiopathic pulmonary fibrosis hernia, prostate issues, meniscectomy, heart bypass, fractured cervical vertebrae Ankle injury, polymyalgia rheumatica, coronary stents, hypertension, thyroid issues
Prior Medications Avopro Lipitor Zantac	No. Patients 1 2 1	

Nexium	1	
Pirfenidone	1	
Aspirin	1	
Trazadone	1	
Naproxen	1	
Paracetamol	1	
Thyroxine	1	
Moduretic	1	
Feldine	1	
Cartia	1	
Prednisone	1	
Plavix	1	
Mycardis	1	
Nil	7	

2.2 Intervention:

There were 9 participants that completed the 6-week intervention. One participant completed the initial phone support assessment call but failed to answer subsequent scheduled calls. One participant did not answer their final scheduled call. The number of support calls ranged from 1 to 4 calls with an average of 3.3 support calls successfully delivered.

2.3 Outcome measure surveys:

All participant outcome measure surveys were completed. One participant required phone contact to complete the final 2 surveys following failure to respond to the 2 automated email reminders.

2.3.1 Completion of outcome measure surveys:

Baseline demographics – 98.5%

Survey 1 – 100%

Survey 2 – 98%

Survey 3 – 100%

3 Pilot study feedback:

3.1 Pilot Participant feedback:

Feedback was sought from all participants enrolled in the pilot study regarding their perception and experience of participating in the pilot program. The feedback was in the form of an online survey with both closed and open-ended questions (see table 6).

3.2 Participant feedback summary:

The intervention was considered useful by 80% of the participants (n = 8) with 100% reporting they were happy with the telecare intervention, 90% would be both willing to receive the intervention again in the

future and would recommend it to others. The frequency of the intervention phone calls was considered to be adequate in 80% of the participant responses (60% extremely adequate, 20% somewhat adequate) and the length of the phone calls was considered reasonable in 100% of participants (50% extremely and 50% somewhat reasonable). There was a positive response in managing their symptoms better in 90% of participants (40% extremely, 50% somewhat better). Improvements in function was reported by 90% of participants (20% extremely and 70% somewhat improved function). One participant reported a neutral response for symptom and functional improvements but did not provide further feedback. Only one participant reported that they didn't find the intervention useful and on further analysis this participant only received the initial consult and did not answer subsequent follow-up calls made. One participant reported that they felt discomfort as a result of participating in the intervention but did not provide further feedback and no adverse events were recorded in the participant online diary. In contrast, 90% reported no discomfort caused by participating in the intervention.

The intervention was considered useful in reaching goals by 80% of participants (50% extremely and 30% somewhat useful). One participant reported that they didn't reach their goals due to their pain being intermittent and had expected to reach this outcome without treatment. The educational material provided during the intervention was considered easy to understand 70% of participants (40% extremely and 30% somewhat easy) whereas 60% of the participants found the educational information provided was helpful (20% extremely and 40% somewhat). When asked what specific components they found the most useful, 50% of the participants reported advise on exercise as well as physio, reassurance, education about pain and medications.

The individual Apps and other resources that were available to for patients to be directed were not used by many. Only one participant reported using the sleep hygiene Apps SLEEPIO (extremely useful) and SHUTi (somewhat useful) and reported the intervention helped with their sleep issues. Others that responded to the question regarding improvements I sleep did not use the sleep hygiene apps and a neutral response (20%) or not really helped (10%) to this question. The videos on pain management were only used by one participant who reported them as extremely useful.

Five participants (50%) chose to leave further feedback of which all comments were positive about the service they received.

Table 6: Overview of Participant responses to the feedback questions (n = 10)

	QUESTION	OUTCOME	OPEN FEEDBACK
1	Study information statement was adequate?	X 4 Extremely X 3 Somewhat X 1 Not really X 2 Neutral 40% extremely useful	- It was highly informative in terms of making me aware of some of the contributing factors of lower back pain - Problem of conflict in answering questions because of my lung disease which is the primary cause of my discomfort. - I don't really know what it was, but the study wasn't what I expected. - I'm not sure what an information statement is. - Study information was easy to understand and stated clearly. - I don't know enough to be able to answer and compare if its adequate, but I think it was pretty good. - It's been a pleasure - It supplied all the information I needed
2	The phone support from your care manager was useful?	X 8 Extremely X 1 Not really X 1 Somewhat 80% extremely useful	- The doctor was very useful in giving tips that helped alleviate the pain extensively. - Getting me back on track after the emergency episode. - I got only one call with very basic advice at the beginning of the study, but that's insufficient. - Trish was a great help and provided me with useful points based on my concerns. - Phone support was extremely helpful. The information about back pain, regular exercise, and weekly goal setting over the phone were extremely useful. - Yes, very good. Helpful and keeps me remembering what to do and my spirits up. - Was good to chat to find out how I was feeling & get advice - She answered a lot of my questions - She was very helpful, listened to my concerns and offered advice.
3	Did you feel the service was appropriate to help manage your low back pain?	X 6 Extremely X 3 Somewhat X 1 Not really	- Extremely useful tips were given that were adhered to. - It helped but wasn't sufficient at all.

		90% positive	- You have to be in the right mindset to take on board what is being told. - I am 100% satisfied with the service to manage my back pain issue. - Yes, a good approach. - Good. - Didn't help with the pain but it was helpful in terms of having her to talk to and to be assured what I was feeling was normal.
4	Were the management options useful in helping you reach your goals?	X 5 Extremely X 3 Somewhat X 1 Not really X 1 Neutral 50% extremely useful	- I did everything that I was advised to and it yielded positive results - Motivation, still lagging, but much better - I didn't reach my goals, as the pain comes and goes which was my main concern at the beginning of the study and I knew I could reach this point without treatment. - After keeping a positive mindset, I still found my back pain recurring at times. This was disheartening and hard to pick up from. - I was able to set my weekly goal and moreover it was helpful to understand whether my goal planning was feasible. - It's been very helpful - I'm sure they were, I have been improving each week.
5	What aspects were most useful in helping you manage your back pain?	Open question only	- The tips given on walking and exercising regularly. - Getting back on track with exercise. - Physiotherapy. - Reassurance that it is not neurological and can be managed. - Discussions with physiotherapist. - 1.Regular exercising. 2. Type of exercise should I follow. 3. Number of times in a day I should practice exercises to manage my back pain. - Mental and physical aspects of the pain. - Exercise.

			- Suggestions with the pain killers and combinations. Breathing through the pain. Exercise options.
6	Did you like the telecare monitoring service intervention?	X 9 Yes X 1 No 90% positive	- Most of the sessions were very good especially the follow up sessions. - All is going well for the moment. - I like it, but it wasn't enough. - Was good to help keep on track. - It was easy to attend. I did not travel to somewhere for the clinical investigation. - Very helpful. - It helps with answering some of my questions. - It was good to have someone to update to monitor if on track.
7	Were you happy with receiving the intervention remotely by phone/teleconference?	X 10 Yes X 0 No 100% happy	- It was a very convenient option to have. - It was easy to attend. I did not need to travel to somewhere for the clinical investigation. - In conjunction with seeing someone was excellent. - It helps. - Phone was convenient
8	Would you be willing be monitored remotely by phone again in the future if you have continued back pain?	X 9 Yes X 1 No 90% positive	- Highly convenient. - It can save lots of time from going to hospital and you can know if the treatment is progressing as expected, otherwise you can be advice to see a physiotherapist. - It is easy to attend. I do not need to travel to somewhere for the clinical investigation. - Why not. - Na. - It's a good service
9	Would you recommend a telecare monitoring service to other people with low back pain?	X 9 Yes X 1 No 90% would recommend	- Highly convenient. - Not sure what it means. - I would recommend it for anything if it is done in conjunction with face-to-face monitoring.

			- With back pain it is difficult to move and travel. So, telecare monitoring service is helpful. - It's great. - I found it helpful.
10	If you were provided with educational information was it easy to understand?	X 4 Extremely X 3 Somewhat X 1 Neutral X 2 N/A 70% easy to understand	- Language used was simple to understand. Language was devoid of many medical technical jargons. - Still not sure ultimate goal. - Taming the beast youtube video. - Yes, also I felt if exercise video could send to participants to understand clearly whether they are practicing in a right way. - Good article was provided.
11	If you were provided educational information was it helpful?	X 2 Extremely X 4 Somewhat X 1 Neutral X 2 N/A 60% useful	- Very useful because the information was very easy to comprehend. - Still not sure ultimate goal. - Yes, also I felt if exercise video could send to participants to understand clearly whether they are practicing in a right way. - Good information.
12	Did you find the ACI pain management videos (if applicable) useful?	X 1 Extremely X 8 N/A X 1 Not at all Not used by 80%	- N/A. - Same as above answer. - Na.
13	Did you find the online SLEEPIO program (if applicable) useful?	X 1 Extremely X 9 N/A Not used by 90%	N/A N/A
14	Did you find the online SHUTi program (if applicable) useful?	X 1 Neutral X 9 N/A Not used by 90%	N/A
15	Was the length of the initial consultation reasonable?	X 5 Extremely X 5 Somewhat	- I think the timing was ideal. - It could've been more efficient.

		50% extremely useful, 50% somewhat useful	- It was reasonable. - It's ok. - It was appropriate.
16	Do you feel the frequency of care manager consultation was adequate?	X 6 Extremely X 2 Somewhat X 1 Neutral X 1 Not at all 60% adequate frequency	- Adequate time in between was useful. two weeks was a reasonable period. - I recall only one or two calls at the beginning and that was it. - Yes. - More frequent would be great. - Weekly consult was good.
17	Do you feel the CONNECT intervention helped you to manage your symptoms better?	X 4 Extremely X 5 Somewhat X 1 Neutral Symptom help 90%	No comments
18	Do you feel the CONNECT intervention helped sleep better?	X 1 Extremely X 2 Neutral X 1 Not really X 5 N/A	No comments
19	Do you feel the CONNECT intervention helped you manage your weight better?	X 3 Neutral X 1 Not at all X 5 N/A	No comments
20	Do you feel any improvements in your ability to function everyday (e.g. socially, family, leisure activities) was likely to be due to the participation in the CONNECT intervention?	X 2 Extremely X 7 Somewhat X 1 Neutral 90% helped with function	No comments

21	Did you experience any discomfort or side effects as a result of participating in the CONNECT intervention?	X 1 Yes X 9 No 90% no discomfort with intervention	N/A
22	Any other feedback you would like to give?	Open ended question	- It was a good educative experience overall. - There should be periodic follow ups of the patient, something like once a week to monitor the evolution of the injury. - It was great to have Trish as a guide to managing the pain and understanding pain better. The regular check-ups made me accountable for any goals in terms of workouts. - I am very happy with everything. Thanks. I would've liked to see the Physio 1 more time for tips on how to sit at a desk all day at work etc but now I've got a new job and it's hard to get time off for an appointment, unfortunately. Late afternoon appointment with a physio even if booked a month in advance would be great but I understand you can't run the clinic long days like that. - Na. - It's a great service and monitoring without having to go to a doctor mostly. I did feel more at ease after my weekly chats

3.3 Pilot ED Physiotherapist feedback:

There were 5 physiotherapists working in the RNSH Emergency department and 3 provided anonymous feedback through a survey emailed to them that was collected from the Connect patient identification box in ED to maintain their anonymity. The questions comprised of closed questions each with an open feedback section.

3.4 Summary of the feedback provided:

The three physiotherapists that completed the feedback survey ranged in their opinion of the participant information statement they received. One physiotherapist found the information extremely useful, one somewhat useful and the last was neutral. The ease of using the identification form yielded the same feedback. No comments were made to direct improvements for either the participant information statement or the identification form. The transfer of the patient details to the research team was considered to be somewhat straight forward by two physiotherapists and extremely straight forward by one. Feedback given was that it was easier to email the patient details directly to the research team rather than transfer the ID form to the concealed ID box in ED.

All three responding physiotherapists regarded patients as being somewhat open and interested in the invitation to participate in the study. The main issues with identification of patients for the study were the lack of physiotherapist time, the small number of patients seen and difficulty in performing the identification of patients.

All three responding physiotherapists reported they would recommend and refer patients to a remote health coaching service for low back pain. Two physiotherapists regarded the intervention frequency as adequate with one not unsure. The barriers identified for using phone consultation were patients not answering the phone and the time allocated to provide the service that is not yet funded.

Table 7: Physiotherapist feedback survey responses

	QUESTION	OUTCOME	OPEN FEEDBACK
1	Study information statement was adequate?	Neutral Somewhat Extremely	
2	Patient identification form easy to use?	Neutral Somewhat Extremely	- Some patients seemed appropriate but with other demands in ED they were discharged before they could be asked to be part of the study
3	Transfer of patient details to the trial coordinator straight-forward?	X2 Somewhat X1 extremely	- Email = easy - Time taken = variable, to make the time to contact Trish
4	Your patients were open and interested in the invitation to participate in the study?	X3 somewhat	Most were keen
5	Please check the greatest difficulties you faced to identify patients for the study?	X2 lack of time X1 small number of patients X1 difficulty in performing identification of patients	No feedback
6	Any other comments on the process of patient identification and transfer of information?		No comments
7	Would you recommend a remote health coaching based intervention to patients in the future?	X3 YES	No feedback
8	If there was health coaching available to all your patients with LBP would you refer to the service?	X3 YES	No feedback
9	Do you think there were any barriers to using telephone and online coaching?	X2 YES X1 NO	- Patients not answering the phone - Time allocated to do this – need funding
10	Do you feel the frequency of care manager consultation was adequate?	X2 YES X1 not answered	- Unsure of what you are asking
11	Do you have any other feedback?		- Thank you for all the effort in trying to get funding/patients etc

4 Acton Plan:

i. Emergency staff recruitment and training

Consecutive patients presenting to the Emergency department were missed due to the lack of ED nurse and doctor involvement in the identification process. Participants were not identified during this pilot study if they presented outside the usual workday hours of the physiotherapy department. They were also missed if they presented at the weekend. To combat this, the future randomised controlled trial would provide a member of the research team to be present daily in the ED especially during shift changes to ensure regular access for training ED nursing and medical staff.

ii. ***The identification processes***

The identification process will include poster advertisement within fast track waiting area and EMU (Emergency Multidiscipline Unit) containing a QR code to enable patients to access an online pre-screening form containing simple inclusion and exclusion criteria. The pre-screening form will also include a section for interested patients to indicate which time of day within the next 2 days is most suitable for the research team to contact them with study information. This will assist busy ED staff with the identification process and eliminate the delay in transferring the identification information to the research team. This will also help to improve time efficiency when trying to make the initial contact with patients expressing interest in the study.

iii. Consent and enrolment process

On completion of the online consent form in REDCap, the survey settings will be set to ensure that correct consent form completion automatically leads to the online baseline survey opening for the participant to complete in one sitting. This will reduce the delay between consent completion, baseline survey completion and enrolment into the study.

iv. Individual participant goals identification

The baseline assessment will include potential issues participants have in relation to their back pain e.g. sleep issues, weight issues. Identification of some of the potential patient specific issues will help guide the care manager (treating physiotherapist) to discuss sleep and weight issues and refer onto appropriate resources.

v. Initial phone consultation

The care manager will have a daily assessment slot scheduled in their diaries to ensure once the participant as been enrolled into the study, there is availability to provide the initial assessment within the recommended timeframe (within 2 days of presenting to the Emergency Department).

5. Grant Achievements:

The outcome of this grant has shown that the phone support service was well received by the majority of participants and physiotherapists. This service will require official implementation the development of a care pathway and hospital staff training to ensure that the Emergency health professionals provide more active involvement in the identification of patients.

The efficiency of participant identification and flow through the recruitment process has been demonstrated that it can be simply improved. This will ensure participants are recruited into the study and enrolled seamlessly into the randomised controlled trial within a few days of discharge from Emergency departments when their requirement for support remains their priority. This will also reduce the volume lost to the study due to the lengthy recruitment process made apparent in the pilot study.

6. Future implications of the Pilot study outcomes:

The phone support service was widely accepted and positively received by the participants involved. Although the clinical outcomes for the pilot study were not analysed as this was not the aim, previous studies providing health coaching style phone support for patients with low back pain have showed that health outcomes are no worse [1]. The economic evaluation of a health coaching phone service has also shown that it reduces the costs of healthcare for those receiving the service in comparison to those who continued with usual care [1]. We also have further evidence from a systematic review analysing the effectiveness of health coaching interventions on clinical outcomes (pain, disability, quality of life and physical activity) for patients with low back pain and hip or knee osteoarthritis that has been submitted for publication [2]. This review identified that there is evidence that health coaching provides a significant improvement in pain in the mid-term and disability in the short and mid-term [2].

The process evaluation of this pilot study has been used to inform the study designs for 2 further new projects:

- ConnectED: Telecare health coaching for patients with low back pain discharged from Emergency Departments
- Deprescribing opioids in patients with low back pain and hip or hip osteoarthritis

The current evolving pandemic situation involving COVID-19 highlights the utility of providing phone or videoconference consultation to patients that require self-isolation, quarantine or are vulnerable. The accessibility and ease of use of such technology would ensure timely support is still provided to those in need whilst protecting the health of the community at large.

7. Publications:

There are presently no publications of the pilot study process, however, we will endeavour to keep Arthritis Australia informed of any publications, meeting presentations or other dissemination of this research.

8. Acknowledgements:

We would like to acknowledge and express our gratitude to the support of Arthritis Australia whose grant enabled this pilot study to occur. The findings of this study will continue to provide valuable planning guidance to future research on remote healthcare services.

We would also like to thank the patients who participated in this study along with the Royal North Shore Physiotherapy Department for their assistance.

9. APPENDIX – Pilot study inclusion and exclusion criteria

Inclusion criteria:

- Are older than 18 years of age
- Have low back pain that the RNSH Emergency Department Medical staff has diagnosed as 'non-specific'
- Agree for details to be passed to trial co-ordinator
- Basic tablet device or computer literacy

Exclusion criteria:

Participants will be excluded if they have:

- Known serious spinal pathology as diagnosed by ED medical staff (e.g. fracture, infective diseases, widespread neurological disorder)
- Co-morbid health conditions that would prevent active participation in the physical activity programs (e.g. unstable angina, uncontrolled hypertension).
- Inadequate English to participate in behavioural interviewing or complete outcome measures.
- Any disorder that may reduce capacity to understand and follow simple instructions

10. REFERENCES:

1. Williams, A., et al., *Effectiveness of a healthy lifestyle intervention for chronic low back pain: a randomised controlled trial.* Pain, 2018. **159**(6): p. 1137-1146.
2. Prior J, et al., *Health coaching for low back pain, hip and knee osteoarthritis: A Systematic Review with Meta-analysis*, U.o. Sydney, Editor. 2020.